

## SOME WATER MITES (ACARI, HYDRACHNIDIA) FROM CALDERA DE TABURIENTE NATIONAL PARK (LA PALMA, CANARY ISLANDS)

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### ABSTRACT

*Protzia cf. lata*, *Lebertia fimbriata* Thor, 1899; *Limnesia martianezi* Lundblad, 1962; *Atractides gomeræ* Lundblad, 1962 are mentioned for the first time for the island of La Palma: *Feltria menzeli* Walter, 1922 and *Aturus atlantica* Lundblad, 1942 for the first time in the Canary islands. It is the first record of the genus *Feltria* Koenike, 1892 in Macaronesia.

**Key words:** Hydrachnellæ, Macaronesia, new findings.

### RESUMEN

#### Nuevos ácaros acuáticos (Acari, Hydrachnidia) del Parque Nacional de la Caldera de Taburiente (La Palma, islas Canarias)

*Protzia cf. lata*, *Lebertia fimbriata* Thor, 1899; *Limnesia martianezi* Lundblad, 1962; *Atractides gomeræ* Lundblad, 1962 han sido encontradas por primera vez en la isla de La Palma: *Feltria menzeli* Walter, 1922 and *Aturus atlantica* Lundblad, 1942 son nueva cita para las islas Canarias y es la primera vez que se registra el género *Feltria* Koenike, 1892 en Macaronesia.

**Palabras clave:** Hidracnelas, Macaronesia, nuevas citas.

### Introduction

The fauna of water mites (Acari, Hydrachnidia) of the Canary islands is not very well known. Four previous contributions (Lundblad, 1962, 1972; Viets, 1968; Gerecke, 1999) have risen the number of species found to 16, distributed between Gran Canaria, Tenerife, La Palma and Gomera. No doubts many more species could be found if continued and systematic sampling is done.

In this paper we report several additional records deriving from a three days sampling trip to La Palma, as well as continuous sampling done

along a year, during the study on the arthropod fauna of the Caldera de Taburiente National Park on that island (see Alonso Zarazaga *et al.*, in prep.)

### Methods and habitats sampled

Sampling was done between 22 and 24 March 2001. Twenty four samples were taken in different habitats, including: springs, wet moss in walls, torrent water, Karaman-Chappuis (a hole done near a stream successively filled with interstitial water), streams and small waterfalls. Samples were

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washed through a 0.250 mm sieve and fixed in Angelier's fluid (Valdecasas and Baltanás, 1989). In the laboratory, the samples were washed again, the mites sorted and kept in Koenike's fluid before dissection.

Some additional mites conserved in alcohol, obtained during a year sampling study of the Caldera de Taburiente National Park (Alonso Zarazaga *et al.*, in prep.) were also studied.

Only water mites in the sense of Cook (1974) are studied here. Some of the habitats had any mite.

**LOCALITIES:** Only the habitats with water mites are given (Fig. 1). The mites from the first three were conserved with Angelier's fluid, all the other with alcohol. For a more detailed description of the localities, see Alonso Zarazaga *et al.* (in prep.).

Fuente Prieta: UTM 28RBS2181-4: *Protzia cf. lata*, *Feltria menzeli*, *Lebertia fimbriata*, *Torrenticola gomerae*, *Atractides gomerae*, *Sperchon hispidus*.

Hoyo Verde (AD45, HV3): UTM 28RBS1882-3: *Eylais planipons novata*, *Aturus atlanticus*, *Protzia cf. lata*, *Sperchon hispidus*, *Atractides gomerae*, *Lebertia fimbriata*.

Piedra Majorera (AD23, AD23A, AD67, ADZ3B): UTM 28RBS2281-2: *Eylais planipons novata*, *Protzia cf. lata*, *Feltria menzeli*, *Lebertia fimbriata*, *Aturus atlanticus*, *Torrenticola gomerae*.

(AD5E, D6E, AD57, AD75): UTM 28RBS1977-1. *Protzia cf. lata*, *Lebertia fimbriata*, *Atractides gomerae*.

(AD28): UTM 28RBS2082-4. *Torrenticola gomerae*, *Atractides gomerae*.

(AD41, AD42, ADZA2, AD93): UTM 28RBS1980-1. *Eylais planipons novata*, *Protzia cf. lata*, *Sperchon hispidus*, *Atractides gomerae*.

(AD63): UTM 28RBS2180-3. *Limnesia martianezi*.

(AD70, AD71, AD74, 13H): UTM 28RBS1879-4. *Eylais planipons novata*, *Sperchon hispidus*.

(AD77): UTM 28RBS2078-4. *Torrenticola gomerae*.

(6E): UTM 28RBS1878-3: *Sperchon hispidus*.

(AD79): UTM 28RBS2176-4 *Torrenticola gomerae*, *Atractides gomerae*.

(3108A): UTM 28RBS1780-2. *Eylais planipons novata*.

## Results

### Superfamily Eylaoidea

#### Family Eylaidae Leach, 1815

#### *Eylais planipons novata* Viets, 1942

In 1962, Lundblad described the species *Eylais canariensis* from several localities in the Canary islands. After that, Viets (1968) found

several specimens of *Eylais planipons novata* Viets, 1942 and taking in account the variability of this species, he decided that *canariensis* is a synonym of the later. *Eylais* species are very variable, and quite probably only molecular evidence could clear the taxonomic value of the present subspecific morphological variation. Previously found in Tenerife, Gran Canaria, La Palma and Gomera.

NEW RECORDS: 3108A; HV-3; ADZA2; AD93; AD74; AD23A; AD42; AD23.

### Superfamily Hydryphantoidea

#### Family Hydryphantidae Thor, 1900

#### *Trichothyas (Lundbladia) petrophila rutae* (Lundblad, 1941)

Previously described with species rank but now considered only a subspecies (see Gerecke, 1996a y b for a recent review and past bibliography). Only one female specimen was found. The dorsal, ventral and palp morphology agree with the description given by Lundblad (1941). Previously found in Tenerife, La Palma and Gomera.

NEW RECORD: AD5E.

### Superfamily Hydryphantoidea

#### Family Hydryphantidae Thor, 1900

#### *Protzia cf. lata* Walter, 1906

This is a variable species. We have found several males and females that fit within the range of variation given in the re-description done by Gerecke (1996a, 1996b).

Main characteristics of the *lata* group are: coxa-1 with an apical set of some 10 seta; medial border of coxa-3 protruding; around 20 genital acetabula; small genital sclerite as in the figure (Fig. 2B); claw clawlets as illustrated (Fig. 2A). Gerecke (1999) described *Protzia faber* from Gomera. The variability of the genital area of the set of specimens available to me doesn't fit well with his description of *faber* and there are other differences in the palp as well, so it is possible that we are dealing with a new species. I prefer to postpone a decision until I have studied more material.

NEW RECORDS: ADZ3B; ADZA2; AD57; AD45; AD67; AD75; Fuente Prieta; Hoyo Verde.

COMMENT: This is the first time that the genus *Protzia* is found in La Palma.

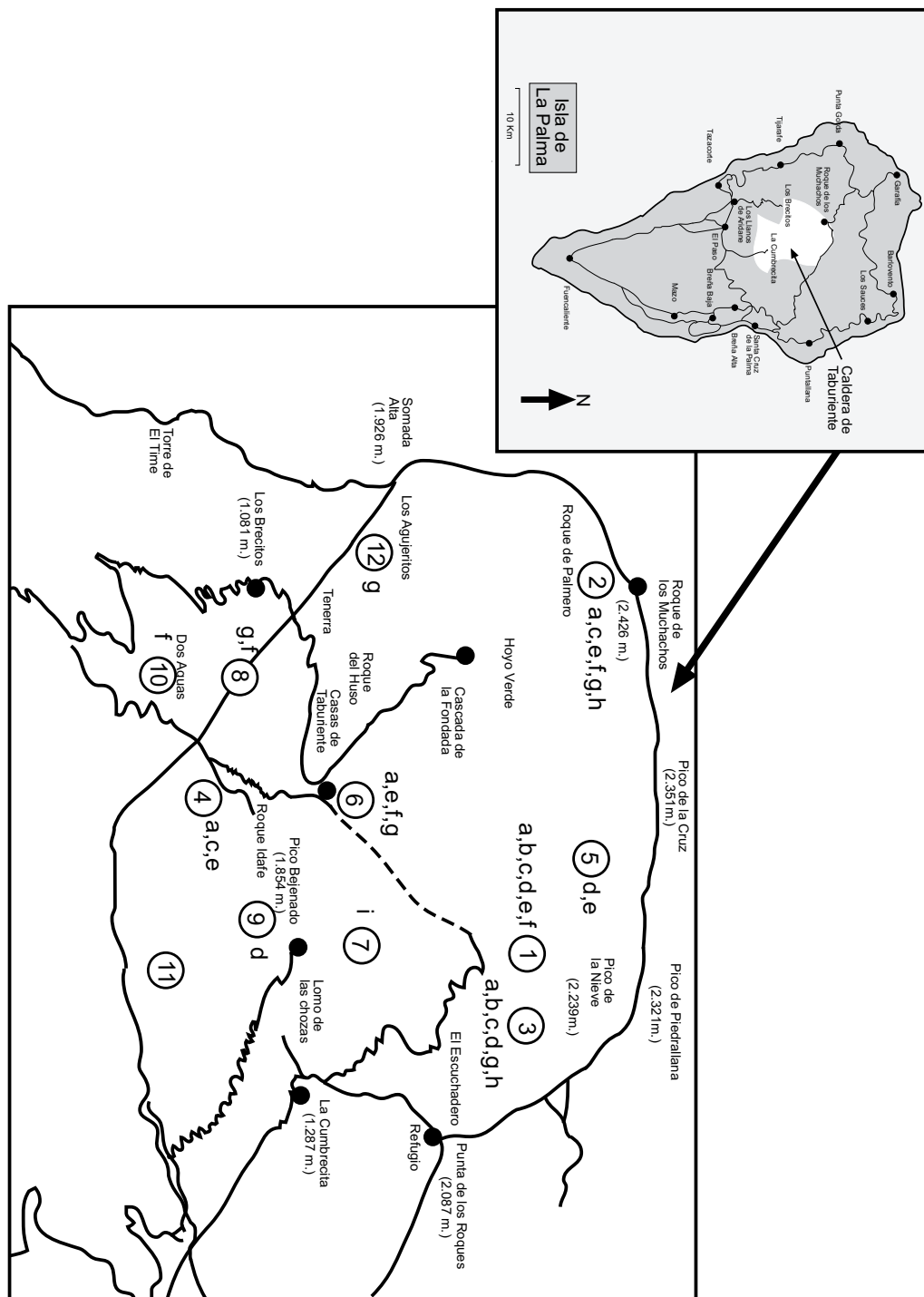


Fig. 1.— Caldera de Taburiente National Park, La Palma, Canary islands: *Protzia cf. lata* (a), *Feltria menzeli* (b), *Lebertia fimbriata* (c), *Torrenticola gomerae* (d), *Atractides gomerae* (e), *Sperchon hispidus* (f), *Eylais planipons novata* (g), *Aturus atlanticus* (h), *Limnesia martianezi* (i).

Fig. 1.— Parque Nacional de la Caldera de Taburiente, La Palma, islas Canarias: *Protzia cf. lata* (a), *Feltria menzeli* (b), *Lebertia fimbriata* (c), *Torrenticola gomerae* (d), *Atractides gomerae* (e), *Sperchon hispidus* (f), *Eylais planipons novata* (g), *Aturus atlanticus* (h), *Limnesia martianezi* (i).

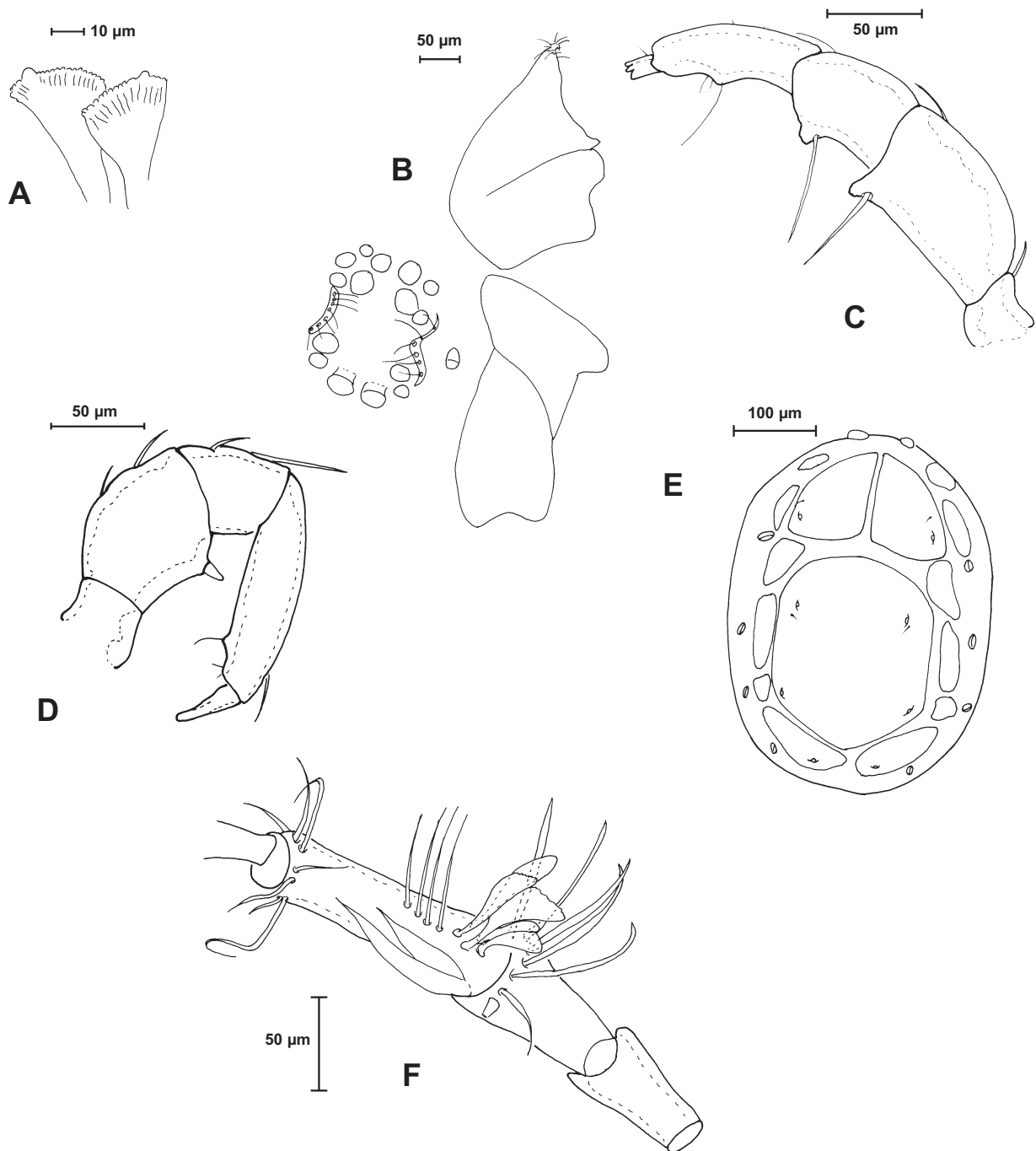


Fig. 2.— *Protzia cf lata* (A) clawlet I-leg-6; (B) left coxa and genital area male; *Torrenticola gomerae*, (C) palp; *Limnesia martianezi*, (D) palp; *Feltria menzeli* (E) dorsal surface female; *Aturus atlanticus* (F) I-leg 4-5.

Fig. 2.— *Protzia cf lata* (A) uña I-pata-6; (B) coxa izquierda y área genital del macho; *Torrenticola gomerae*, (C) palp; *Limnesia martianezi*, (D) palp; *Feltria menzeli* (E) superficie dorsal de la hembra; *Aturus atlanticus* (F) I-pata-4-5.

## Superfamily Lebertioidea

## Family Spermontidae Thor, 1900

***Spermchon hispidus*** Koenike, 1895

Lundblad (1962) described a new forma of the species *Spermchon hispidus* Koenike, 1895 *S. h. canariensis*, but Viets (1968) considers that this forma does not merit taxonomic distinction.

Previously found in La Palma and Gomera.

NEW RECORDS: 13H; 6E; ADZA2; AD71; AD70; AD45; AD41; AD42; Fuente Prieta; Hoyo Verde.

## Superfamily Lebertioidea

## Family Lebertiidae Thor, 1900

***Lebertia fimbriata*** Thor, 1899

Similar to the specimen described by Lundblad from Gomera (Lundblad, 1972).

Previously found in Gomera.

NEW RECORDS: AD75; Cascada de la Piedra Majorera; Fuente Prieta; Hoyo Verde.

## Superfamily Lebertioidea

## Family Torrenticolidae Piersig, 1902

***Torrenticola (Torrenticola) gomerae*** Lundblad, 1972

Two *Torrenticola* species have been described for the Canary islands: *T. palmensis* Lundblad, 1962 and *T. gomerae* Lundblad, 1972. Both are related with *Torrenticola elliptiformis* (Lundblad, 1941) from Madeira. The ventral surface of palp segments II and III of *T. gomerae*, with their apical end stretched as in the figure (Fig. 2C), are diagnostic.

Previously found in La Palma.

NEW RECORDS: AD28; AD77; AD79; Cascada de la Piedra Majorera; Fuente Prieta.

## Superfamily Hygrobatoidae

## Family Limnesiidae Thor, 1900

***Limnesia martianezi*** Lundblad, 1962

Originally described from Tenerife from a female specimen. The specimen found is a male and the second specimen found of this species. It is very close to *L. atlantica* Lundblad, 1941 described from Madeira. I give below some body measurements to complete the description, but as the specimen was preserved in alcohol, they should be taken critically. Dorsal length: 720 µm; body width: 550 µm; genital area 190 µm in length, 140 µm in

width; dorsal length palp segments: P-I: 25 µm; P-II: 85 µm; P-III: 70 µm; P-IV: 120 µm; P-V: 35; capitulum: 155 µm in length; chelicerae: 288 µm in length (Fig. 2D).

R. Gerecke (in litteris, 25/Nov./2002) has pointed out the possibility that *L. martianezi* is a synonym of *L. arevaloi*, Viets 1918: "I remember that Henk Van der Hammen had made a confront between the types of this species and *L. arevaloi*, and he was convinced that they are synonym".

After comparing previous descriptions of *L. arevaloi*, including the original Viets paper, and due to the fact that the single specimen is poorly preserved, I can not confirm the synonym and prefer to keep the present status until further material is available.

NEW RECORD: AD63.

## Superfamily Hygrobatoidae

## Family Hygrobatidae Koch, 1842

***Atractides gomerae*** Lundblad 1962

Structure of the palp and last segments of first leg as illustrated by Lundblad, 1962.

Previously found in Gomera.

NEW RECORDS: AD45; AD28; AD41; AD6E; AD79; Fuente Prieta.

## Superfamily Hygrobatoidae

## Family Feltriidae Viets, 1926

***Feltria menzeli*** Walter, 1922

Only female specimens have been found that agree with Walter's (1922) original description. Fig. 2E illustrates the dorsal view. The dorsoglandularia C (sensu Cook, 1961) show different degree of fusion with the single dorsal plate D in the different specimens sampled. This taxon was previously recorded from Switzerland, Algeria and Corsica.

NEW RECORDS: Cascada de la Piedra Majorera; Fuente Prieta.

COMMENT: This is the first time that the genus *Feltria* Koenike, 1892 is found in Macaronesia.

## Superfamily Hygrobatoidae

## Family Aturidae Thor, 1900

***Aturus atlantica*** Lundblad, 1942

The specimen agrees with Lundblad's original description, especially in the setation of segments 4-5 of the fourth leg (Fig. 2F) and the distal seg-

ments of the third leg, besides dorsal and ventral body morphology.

NEW RECORDS: Cascada de la Piedra Majorera; Hoyo Verde.

COMMENT: The genus *Aturus* Kramer, 1875 is new for the Canary islands.

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